

1644

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/506,978

DATE: 06/20/2001  
TIME: 14:50:35

Input Set : A:\Epfl-1.app  
Output Set: N:\CRF3\06202001\I506978.raw

**ENTERED**

3 <110> APPLICANT: Spertini, Francois  
5 <120> TITLE OF INVENTION: NOVEL BEE VENOM POLYPEPTIDES AND METHODS OF USE THEREOF  
7 <130> FILE REFERENCE: 18519-001  
9 <140> CURRENT APPLICATION NUMBER: 09/506,978  
10 <141> CURRENT FILING DATE: 2000-02-18  
12 <160> NUMBER OF SEQ ID NOS: 5  
14 <170> SOFTWARE: PatentIn Ver. 2.0  
16 <210> SEQ ID NO: 1  
17 <211> LENGTH: 67  
18 <212> TYPE: PRT  
19 <213> ORGANISM: Apis mellifera  
21 <400> SEQUENCE: 1  
22 Gly Gly Phe Gly Gly Leu Gly Gly Arg Gly Lys Cys Pro Ser Asn Glu  
23 1 5 10 15  
25 Ile Phe Ser Arg Cys Asp Gly Arg Cys Gln Arg Phe Cys Pro Asn Val  
26 20 25 30  
28 Val Pro Lys Pro Leu Cys Ile Lys Ile Cys Ala Pro Gly Cys Val Cys  
29 35 40 45  
31 Arg Leu Gly Tyr Leu Arg Asn Lys Lys Lys Val Cys Val Pro Arg Ser  
32 50 55 60  
34 Lys Cys Gly  
35 65  
38 <210> SEQ ID NO: 2  
39 <211> LENGTH: 69  
40 <212> TYPE: PRT  
41 <213> ORGANISM: Apis mellifera  
43 <220> FEATURE:  
44 <223> OTHER INFORMATION: Where XX at position 68 and 69 is either PL or LP.  
46 <400> SEQUENCE: 2  
47 Gly Gly Phe Gly Gly Leu Gly Gly Arg Gly Lys Cys Pro Ser Asn Glu  
48 1 5 10 15  
50 Ile Phe Ser Arg Cys Asp Gly Arg Cys Gln Arg Phe Cys Pro Asn Val  
51 20 25 30  
53 Val Pro Lys Pro Leu Cys Ile Lys Ile Cys Ala Pro Gly Cys Val Cys  
54 35 40 45  
56 Arg Leu Gly Tyr Leu Arg Asn Lys Lys Lys Val Cys Val Pro Arg Ser  
57 50 55 60  
59 Lys Cys Gly Xaa Xaa  
60 65  
63 <210> SEQ ID NO: 3  
64 <211> LENGTH: 71  
65 <212> TYPE: PRT  
66 <213> ORGANISM: Apis mellifera  
68 <400> SEQUENCE: 3  
69 Phe Gly Gly Phe Gly Gly Phe Gly Gly Leu Gly Gly Arg Gly Lys Cys  
70 1 5 10 15  
72 Pro Ser Asn Glu Ile Phe Ser Arg Cys Asp Gly Arg Cys Gln Arg Phe

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/506,978

DATE: 06/20/2001  
TIME: 14:50:35

Input Set : A:\Epfl-1.app  
Output Set: N:\CRF3\06202001\I506978.raw

```

73          20          25          30
75 Cys Pro Asn Val Val Pro Lys Pro Leu Cys Ile Lys Ile Cys Ala Pro
76          35          40          45
78 Gly Cys Val Cys Arg Leu Gly Tyr Leu Arg Asn Lys Lys Lys Val Cys
79          50          55          60
81 Val Pro Arg Ser Lys Cys Gly
82 65          70
85 <210> SEQ ID NO: 4
86 <211> LENGTH: 73
87 <212> TYPE: PRT
88 <213> ORGANISM: Apis mellifera
90 <220> FEATURE:
91 <223> OTHER INFORMATION: Where XX at position 72 and 73 is either PL or LP.
93 <400> SEQUENCE: 4
94 Phe Gly Gly Phe Gly Gly Phe Gly Gly Leu Gly Gly Arg Gly Lys Cys
95 1          5          10          15
97 Pro Ser Asn Glu Ile Phe Ser Arg Cys Asp Gly Arg Cys Gln Arg Phe
98          20          25          30
100 Cys Pro Asn Val Val Pro Lys Pro Leu Cys Ile Lys Ile Cys Ala Pro
101          35          40          45
103 Gly Cys Val Cys Arg Leu Gly Tyr Leu Arg Asn Lys Lys Lys Val Cys
104          50          55          60
W--> 106 Val Pro Arg Ser Lys Cys Gly Xaa Xaa
107 65          70
110 <210> SEQ ID NO: 5
111 <211> LENGTH: 35
112 <212> TYPE: PRT
113 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: Description of Artificial Sequence: CYSTEINE
117 SPACING MOTIF
119 <220> FEATURE:
120 <223> OTHER INFORMATION: Where any X can be any amino acid.
122 <400> SEQUENCE: 5
W--> 123 Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Cys Xaa Xaa
124 1          5          10          15
W--> 126 Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Cys Xaa
127          20          25          30
W--> 129 Xaa Xaa Cys
130          35

```

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/506,978

DATE: 06/20/2001

TIME: 14:50:36

Input Set : A:\Epfl-1.app

Output Set: N:\CRF3\06202001\I506978.raw

L:59 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:2  
L:59 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:2  
L:59 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:106 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:4  
L:106 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:4  
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:123 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:5  
L:123 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:5  
L:123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:126 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:5  
L:126 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:5  
L:126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:129 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:5  
L:129 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:5  
L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5